

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019219**Date Inspected:** 10-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Gary Ershan and William Sherwood			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	Orthotropic Box Girder		

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 8W/9W edge plate 'F' outside, QA randomly observed ABF/JV qualified welder Mick Chan continuing to perform fill pass welding on the Complete Joint Penetration (CJP) splice butt joint. The welder was observed manually welding in the 3G (vertical) position utilizing a Shielded Metal Arc Welding (SMAW) with 5/32" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040B. The joint being welded has a single V-groove butt joint with copper backing bar. ABF Quality Control (QC) Gary Ershan was noted monitoring the welding parameters of the welder. QA randomly monitored the welding parameter with reading of 150 amperes which appears in conformance to the contract requirements. At the end of the shift, SMAW fill pass welding was still continuing and should remain tomorrow.

At 8W-PP70.5-W5-TS top deck access hole inside, QA randomly observed ABF/JV qualified welder Jorge Lopez manually welding the CJP transverse stiffener splice butt joint in the 3G (vertical) position utilizing a SMAW with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1010 Revision 1. The joint being welded has a double V-groove butt joint. During welding, ABF Quality Control (QC) William Sherwood was also noted monitoring the welding parameters of the welder. During the shift, SMAW cover pass welding on both sides of the splice butt joint was completed and the welder has started flush grinding the weld covers. Flush grinding of the weld cover reinforcement was not completed during the shift.

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At OBG 8W/9W top deck plate 'A' outside, QA randomly observed ABF/JV qualified welder Wai Kitlai perform CJP repair welding. The welder was noted welding in 1G (Flat) position utilizing SMAW with 5/32" and 1/8" diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1001 Repairs. The welding repairs were excavated to a boat shape profile and were tested with Magnetic Particle Testing (MT) prior welding. During welding, ABF QC Gary Ersham was noted monitoring the welder and his welding parameters. Welding parameter measured at the time of welding were 180 amperes and 136 Amperes respectively on the electrodes mentioned above which appears in compliance to the WPS. The locations of the repairs were noted below;

	Location	Y-dimension	Length	Width	Depth	Remarks
1.	A3	222mm	130mm	24mm	15mm	Completed
2.	A3	335mm	130mm	24mm	13mm	Completed
3.	A1	5200mm	240mm	24mm	15mm	Completed
4.	A1	880mm	540mm	22mm	20mm	Excavated
5.	A5	0mm	120mm	21mm	13mm	Completed
6.	A4	5200mm	120mm	20mm	14mm	Completed
7.	A4	4500mm	95mm	27mm	13mm	Completed
8.	A4	4200mm	110mm	23mm	13mm	Completed

At OBG 9W panel point PP72 to side plate 'E' outside, QA randomly observed ABF welder Earl Espinoza perform fillet and partial joint penetration (PJP) welding in 2F/2G position using SMAW with 1/8" diameter E7018H4R electrode. The welder was welding on 2 1/4" wide x 3/8" thick drip plate to the side plates of the OBG. The drip plate and the surface of the side plate (where the drip plate was welded) were noted ground and the paint coating removed. ABF QC Gary Ersham was noted monitoring the welding and its parameters. At the end of the shift, fillet and PJP welding at location mentioned was still continuing and should remain tomorrow.



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Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer